

Newsletter N° 66
April 2004

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CIGR NEWS

2004 CIGR International Conference "The Olympics of AgEng" 10 to 13 October 2004 in Beijing, China

More than 650 Abstracts Received

As an international CIGR conference, The Olympics of AgEng has already been meeting with considerable positive feedback from all over the world. As of 5 April 2004, according to information from the conference secretariat, almost 700 abstracts have been submitted to the organisers of the conference. The approximate numbers for each of the

sessions are: I: 150, II: 200, III: 150, IV: 75, V: 100. With the deadline for abstract submission extended to 15 April, several more may be expected to be handed in, making the 2004 CIGR International Conference an event with a truly global scope.

Conference Programme

Date	Morning	Afternoon	Evening
09 October		CIGR Presidium Meeting (12:00-17:00)	
10 October	Registration CIGR Executive Board Meeting (8:30-12:30)	Registration CIGR Technical Board Meeting (14:00-17:00)	Registration
11 October	Opening Ceremony (9:00-10:00) Coffee Break (10:00-10:20) Keynote Speeches (10:20-12:00)	Parallel Sessions (13:30-15:15) (15:30-17:00)	Reception
12 October	Parallel Sessions	Parallel Sessions	CIGR General Assembly (17:30-19:00)
13 October	Parallel Sessions	Parallel Sessions	Banquet
14 October	Technical Tour	Technical Tour	

Involvement of CIGR Technical Sections

Session I	Land and Water Management	sponsored by CIGR Section I
Session II	Bioproducts Processing and Food Safety	in conjunction with the First International Conference of CIGR Section VI
Session III	Information Technology for Agriculture	in conjunction with the First Technical Symposium of CIGR Section VII
Session IV	Conservation Tillage and Sustainable Small Farming	sponsored by CIGR
Session V	Modern Agricultural Equipment and Facilities	sponsored by CIGR Technical Section III

For additional details concerning the individual sessions, see the announcements on pages 4 to 6 of this Newsletter.

CIGR Newsletter in Arabic

The CIGR Newsletter, published by CIGR in English and French, is translated into Arabic by ANAFID, the Moroccan National Society of CIGR. The Arabic version of the CIGR newsletter is available from the ANAFID website <http://www.anafid.ovh.org/>.

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CIGR E-Journal / Agricultural Engineering International: The CIGR Journal of Scientific Research and Development

Fifth Year of Publication Completed

The CIGR Electronic Journal has completed its fifth year of publication. Volume V (2003) consists of 29 peer reviewed technical articles and 25 invited overview articles. With the year 2004 now three months old, the journal is well into its sixth volume, with six peer reviewed research papers that have appeared since January 2004. Having grown from a modest beginning, the CIGR Electronic Journal is now attracting many quality manuscripts from a broad international base. Here is an overview of the papers published in Volumes I (1999) to V (2003).

Peer reviewed original research papers (total-94): I-7; II-10; III-23; IV-25; V-29.

These papers are from: Australia-2, Belgium-2, Brazil-2, Canada-3, Cameroon-1, China-1, Czech Republic-3, Denmark-5, Estonia-1, Germany-5, Greece-4, Ireland-1, Iran-1,

Israel-2, Italy-2, Japan-21, Lithuania-3, Netherlands-2, Nigeria-2, Poland-6, Portugal-4, Spain-5, Thailand-1, Turkey-1, USA-12.

Invited overview papers (including Club of Bologna keynote presentations total-59): I-2; II-4; III-8; IV-20; V-25

These papers are from: Australia-1, Brazil-3, Canada-2, China-2, FAO-3, France-1, Germany-4, Greece-1, India-2, Israel-1, Italy-6, Japan-3, Mexico-1, Morocco-1, Netherlands-2, Nigeria-1, Oman-1, Palestine-1, Poland-1, Russia-1, Taiwan-1, Thailand-1, UK-1, USA-15, Zimbabwe-1.

The full contents, including the new papers of Volume VI, is available at <http://cigr-ejournal.tamu.edu>

A list of items added since the January issue of the CIGR newsletter is given under "publications" at the end of this newsletter.

NEWS FROM REGIONAL AND NATIONAL SOCIETIES

SBEA Address Update

Sociedade Brasileira de Engenharia Agrícola – SBEA Faculdade de Ciências Agrárias e Veterinárias, Campus de Jaboticabal, Departamento de Engenharia Rural, Via de Acesso Prof. Paulo Donato Castellane, s/nº, 14884.900 – Jaboticabal – SP - BRASIL. Phone/Fax: 0XX16 3203 3341 E-mail: sbea.jab@netsite.com.br President (2003-2005): Evandro Chartuni Mantovani, Embrapa Milho e Sorgo, Caixa Postal 151, 35701.970 – Sete Lagoas – MG – BRASIL. Email: evandro@cnpmc.embrapa.br

Report on the 32nd International Symposium "Actual Tasks on Agricultural Engineering" February 23-27, 2004, Opatija, Croatia

The 32nd International Symposium "Actual Tasks on Agricultural Engineering" was held from 23 to 27 February 2004 in Opatija, Republic of Croatia. The main organiser was the Agricultural Engineering Department, Faculty of Agriculture, University of Zagreb, with the co-operation of the following frameworks: Faculty of Agriculture, University J. J. Strossmayer, Osijek, Faculty of Agriculture, University of Maribor (Slovenia), Agricultural Institute of Slovenia, Hungarian Institute of Agricultural Engineering and Croatian Agricultural Engineering Society. The Symposium was co-sponsored by EurAgEng, CIGR, AAAE and, for the first time, the newly founded society Agricultural Engineers of South Eastern Europe (AESEE).

The symposium was attended by 125 participants from 14 countries. It consisted of an Opening Session and four Topic Sessions covering all the broad subject areas that fall under the scope of Agricultural Engineering.



Prof. Silvio Košutić

At the Opening Session, the convenor, Prof. Silvio Košutić, brought the greetings of both the Croatian Society of Agricultural Engineering and the Faculty of Agriculture of the State University of Zagreb, and Prof. Daniele De Wrachien, President of EurAgEng, stressed the long tradition of the Symposia, their role as gathering events for agricultural engineers in South-Eastern Europe in the last three decades, and the new tasks and challenges that research oriented professionals and technicians will have to face and cope with in the third millennium. Next, three key-note lectures were delivered.

Prof. Daniele De Wrachien discussed the impacts of climate change, due to the greenhouse effect, on crop water requirements, water availability, and the planning and design process of irrigation systems in a Mediterranean environment. Prof. Istvan Nagy from the Hungarian Institute of Agricultural Engineering of Gödöllő analyzed the arguments for and against different types of machinery in a small-scale farm environment. Dipl.-Ing. Björn Bernhard from the University of Hohenheim outlined the history and the state of the art of electrically propelled agricultural machines and highlighted the most recent developments in that field.

In the Topic Sessions, each starting with a review report, 39 papers were discussed in oral presentations or as posters. In the Closing Session, Silvio Košutić emphasized the role of EurAgEng in the sustainable development of agriculture in the East-European countries, regardless of their financial capabilities and present transition problems.

World famous agricultural machinery producers, such as AGO, Case-New Holland, Claas, Deutz-Fahr, Hardi, John Deere, Westfalia Surge, presented their current programmes by means of video tapes and oral presentations during afternoon Sessions. Information regarding the 33rd Symposium in the year 2005 will soon be available at the web site http://www.agr.hr/aed_symposium.htm

*Prof. Silvio Košutić
Prof. Daniele DeWrachien*

CIGR – SPONSORED ACTIVITIES

A chronological list of events in the field of agricultural engineering can also be found in our Events Calendar which can be consulted on CIGR's Website:

<http://www.cigr.org/>

"New Trends in Farm Buildings" International Symposium of CIGR Section II

CIGR-Section II invites you to participate in the International Symposium "New Trends in Farm Buildings" that will be held in **Évora, Portugal** from **2 to 6 May 2004**. The objective of the Symposium is to bring together scientists from different countries working in agricultural engineering and related areas, particularly those involved with structures and environmental control for animal and plant production. Research findings, legislation, technical solutions and future trends concerning farm buildings, systems and equipment for animal and plant production will be shared and discussed.

The scientific program will include poster sessions, plenary sessions, and oral sessions on the following topics:

- Farm building design and rural landscape
- Housing design and animal welfare
- Agriculture waste management
- Sustainable outdoor systems for animal production
- Greenhouse structures and environmental control
- Livestock environmental control in hot climates

Registration fees are € 500 (before 15 April 2004) for CIGR members, 400 for participants from developing countries, 300 for students. Participation in technical sessions, book of abstracts, CD-ROM with proceedings, coffee, lunches, and technical tour included.

For further Information on technical tours, social program, etc., consult www.der.uevora.pt/fb2004.htm. Scientific issues are handled by Prof. J. Meneses; E-mail: jmeneses@isa.utl.pt; other issues by Ms Paula Sequeira, Phone: +351 266 760823, Fax: + 351 266 711189, E-mail: pcf@uevora.pt

International Conference CIGR Section IV "Electricity and Energy, Especially the Renewable Energy Sources in Agriculture, in Rural Development and Habitation Management"

Organised by the Hungarian Electrical Association, this conference will be held in **Budapest, Hungary**, from **17-22 May 2004** in the House of Technics (H-1055, Budapest, Kossuth Lajos tér 6-8). The conference language will be English. The main themes are:

- The possibility of agricultural farms becoming energy producers instead of energy consumers by the use of regenerative energy sources
- The possibilities of using new wind technology in agriculture

- The economic possibilities of using regenerative energy sources in agriculture and habitation management in developed countries
 - The economic possibilities of using regenerative energy sources in agriculture and habitation management in developed countries
 - Problems in the use of electrical energy in agriculture
- Registration fees are 410 € (including 25% VAT), 380 € for CIGR members; participants from developing or former socialist countries: 330 €; students: 165 €. Payment upon registration: add 30 €. Participation in technical sessions, summaries and full texts of the papers, coffee included for all participants; welcome party, cultural event, one-day study tour not included for students. The two-day study tour after the conference is 160 €.

For further information on the conference and on the possibility to rent advertising space in the conference documentation, please contact the Conference office: Elitexpo Ltd., "CIGR-Conference", H-1056 Budapest, Belgrád rkp. 22., Hungary. Tel./Fax: +36 1 318-3710 or -0937 E-mail: eexpo@axelero.hu ; <http://www.securityinfo.hu>

2004 CIGR International Conference "The Olympics of AgEng"

This international CIGR conference will be held from **11 to 14 October 2004** in the International Meeting Centre of **Beijing, PR China**. With the sponsorship of CIGR, the Chinese Society for Agricultural Machinery (CSAM), the Chinese Society of Agricultural Engineering (CSAE), and co-sponsored by AAAE and AOC, the conference is organised by the Chinese Agricultural University (CAU), the Chinese Academy of Agricultural Mechanisation Sciences (CAAMS), and the Chinese Academy of Agricultural Engineering (CAAE). The conference language will be English.

Human beings are facing the new challenge of the growing of knowledge-based economy that affects our daily lives. Agricultural engineering knowledge and technologies have spread throughout the world with the development of information technology and multi-disciplinary activities.

As we move into the new millennium, advanced engineering technologies are being rapidly applied in agriculture, food and bio-systems. The need for increased cooperation and face-to-face exchanges among engineers, scientists, and commercial companies in the global village is evident.

The 2004 CIGR International Conference aims to provide opportunities for researchers, scholars, managers and other professionals to exchange the latest information, and to provide a discussion forum on how to promote scientific and technological innovations on agricultural engineering

into the new millennium.

The product shows, poster sessions and other academic activities of this conference will deal with subjects such as:

- Modern agricultural equipment and facilities (plant and animal production)
- Soil, water and environment
- Post harvest technology and biomass engineering
- Information technology for agriculture.

Agricultural engineers, institutions and companies are invited to participate in this congress and to submit a paper to the academic committee. Papers presented at the meeting will be available to the meeting participants on CD-ROM, and abstracts will be published officially for the participants.

Dates and Deadlines:

Full papers

1 June 2004

Failure to submit a written paper by 1 June 2004 will not preclude the author from presenting, but the paper will not be included in the proceedings available at the meeting. Further information is available on the internet at <http://www.2004cigr.org/> or from the Conference Secretary Dr. Renjie Dong, PO Box 184#, China Agricultural University, No. 17 Qinghuadonglu Haidian district, Beijing 100083, PR CHINA. Email: 2004cigr@bjaeu.edu.cn or 2004info@bjaeu.edu.cn or info@2004cigr.org

1st CIGR Section VI International Conference on "Bioproducts Processing and Food Safety"

CIGR-Section VI deals with the engineering principles and technologies in post-harvest and processing of agro-food products. It is intended to follow the trends, promote the advancement and enhance the dissemination and the transfer of technology in post-harvest and processing at a global scale. Its missions are

- To bring together all those that are working in post-harvest and processing;
- To stimulate international experiences, exchange and co-operation, for the advancement of knowledge in this area, world-wide
- To stimulate participation in CIGR activities, especially Congresses
- To define the areas that are in need of research and /or of transfer of technology
- To advance in knowledge for the assurance of safety of all products for human consumption.

In order to better fulfil its missions, CIGR Section VI is organizing the 1st Technical Symposium of CIGR Section VI on food and bioproduct processing and food safety in **Beijing, P.R. China from 11 to 14 October 2004**, as part of the 2004 CIGR International Conference. This symposium will feature a series of presentations and discussion in plenary, scientific and poster sessions, and informal gatherings to highlight most recent developments in food and bioproducts processing and food safety. Selected papers presented at this symposium will be published in a special issue of Journal of Food Engineering, an international leading and SCI cited academic journal published by Elsevier. The full Proceedings of the Symposium will be published in CD-ROM and provided to all participants at the registration desk during the Symposium.

The symposium is jointly organised by National University

of Ireland, Dublin, CIGR Section VI (Postharvest Technology and Process Engineering) and China National Packaging & Food Machinery Corporation (CPFMC) and sponsored by the International Association for Engineering and Food (IAEF), the Institute of Food Technologists (IFT) and the Chinese Academy of Agricultural Mechanization (CAAMS).

The topics to be covered include

- Physical properties
- Sensors and sensing technology
- Process modelling, simulation and control
- Thermal processing, chilling and freezing
- Dehydration processes
- Separation processes
- Preservation and storage
- Packaging
- Emerging processing technologies
- Product quality and safety
- Biotechnology
- Waste treatment and management
- Processing equipment

You are invited to submit a paper to the Symposium.

Please note the following important dates:

Deadline for full paper submission: 1 June 2004

Technical programme available on the website: 1 July 2004

For further information, please consult the symposium web page at <http://www.2004cigr.org/en/processing> or contact Assoc. Prof. Lanfang Zhang, PO. Box 8, Chinese Academy of Agricultural Mechanization Sciences (CAAMS), No.1 Beishatan, Deshengmen Wai, Beijing 100083, P.R. China. Tel: 010-64882509, 010-64849687, 010-64882523; Fax: 010-64883508, 010-64849687; Email: info@2004cigr.org

1st CIGR Section VII Technical Symposium on "Information Technology for Agriculture"

A further Technical Symposium to be held as part of the 2004 CIGR International Conference in **Beijing from 11 to 14 October 2004** will be organized by CIGR Section VII. Session III of the CIGR 2004 Conference will present papers reporting on progress in the development and applications of IT in food and agriculture productions, natural resources and environmental management, and rural development. In addition to the plenary session of the entire conference, Session III activities consist of two and a half days of invited speeches, oral and poster presentations, technical exhibition, and selective technical tours in Beijing. The goal of session III is to provide a forum for interaction, discussion, and information exchange among scientists and engineers from developed and developing countries on the role of ICT in agricultural modernization and sustainability.

Main Topics:

- Strategic issues related to the research, use, deployment, and adoption of IT in agriculture
- Information technology in agriculture, food production, resource and environmental management
- Spatial information technology (GPS, GIS, RS) for agriculture; precision agriculture and precision livestock farming
- Advanced sensing technology, instrumentation, robotics

- and automation systems for agriculture
- Biosensors & bioinformatics
 - Information technology for food quality, safety, and traceability
 - Machine vision and spectroscopy
 - Modeling and simulation of agricultural & biosystems
 - Expert systems, decision-support systems, and applied software development for agriculture
 - Communications, networking, and wireless technologies
 - Web-based technology and information services for agriculture

Dates and Deadlines:

Full manuscript due: 15 June 2004

Detailed Programme available on the Internet: 15 Aug 2004

The conference language will be English. A full version of the technical papers accepted by the conference on CD-ROM and a bound volume of full abstracts will be available to the participants on registration desk before the conference.

For further information, look up <http://www.2004cigr.org> or <http://pa.cau.edu.cn/conferences/cigr.htm> or contact the Session III secretariat: 2004CIGR_IT@cau.edu.cn

CIGR Section I International Conference Envirowater 2004: "Land and Water Management: Decision Tools and Practice"

The 2004 CIGR International Conference, which will be held in the **Beijing** International Meeting Center, **P. R. China**, from **11-14 October 2004**, is a forum on agricultural engineering in the new millennium. As a main part of the 2004 CIGR International Conference, the 7th Inter-Regional Conference on Environment and Water, entitled "Land and Water Management: Decision Tools and Practice" will be held on the same occasion in association with CIGR-Section I: Land and Water Engineering.

The conference is organised by the China Agricultural University (CAU) and the National Center of Efficient Irrigation Engineering and Technology Research (NCEI) of the P. R. China. The Organizing Committee is chaired by the Incoming President of CIGR, Prof. Luis Santos Pereira from the University of Lisbon, Portugal.

The conference is sponsored by CIGR-Section I, and, among others, the Chinese Society of Agricultural Engineering (CSAE), the International Commission on Irrigation and Drainage (ICID), and the Food and Agriculture Organization (FAO).

Rapid population growth and the continuous development of economic activities produce an increased demand for water. Many countries especially China are therefore facing greater and severe shortages both in water and land resources, as well as soil erosion and land desertification. Various environmental and ecological issues have been highlighted in recent decades. To improve land and water planning and management, policies, measures and practices must be identified which provide for the sustainable use of water and land resources and appropriately control the environmental risks associated with those uses. Scientists, engineers and managers from many countries have produced a variety of modern technologies and decision tools and practices that may contribute to the improvement of land and water management. These technologies include

information systems, remote sensing, geo-referencing, knowledge based systems and a variety of models and decision support systems. As one of the largest developing countries, and with the largest population in the world, China has also made great progress and gained enormous experience in land and water management which can be mobilised for coping with its recent economic and social growth. However, because each country has its own characteristics and approaches, there is a strong need for cooperation and to share experiences among engineers, scientists, managers, and other decision and policy makers. This need is made even more evident by the challenges posed by globalization.

The 7th Inter-Regional Conference on Environment and Water aims at promoting exchanges and collaboration on land and water management and offers opportunities for researchers, scholars, managers and other professionals to share the latest information and findings, thus providing a discussion forum on environment and water issues approached from the global perspective. The topics of the conference include all scientific issues and technologies for improving strategies for the use and management of land and water in order to achieve improved productivity, sustainable development in using natural resources, environment conservation and enhancement, and the minimization of risks to people and their society:

- I. Water Saving and Water Productivity
 - Models, data, and model validation and calibration
 - Modeling irrigation systems
 - Information tools for irrigation scheduling and delivery scheduling
- II: Land Use Planning and Management
 - RS, GPS, and monitoring
 - Information systems and GIS tools
 - DSS for land use planning
- III. Soil Erosion and Conservation
 - Models and data gathering
 - Planning for extreme events
 - Maintenance and modernization of soil conservation structures
- IV. Water Conservation and Soil Management
 - Soil physical properties and data bases
 - Soil tillage and land forming
 - Water harvesting
- V. Salinity, Water Treatment and Reuse, and Contamination Control
 - Monitoring to avoid land degradation and water contamination
 - Modeling salinity and contamination dynamics
 - Tools and practices for reuse of drainage and waste water

The conference language will be English.

Deadlines:

Full manuscript due: 1 June 2004

Information to authors: 1 July 2004

Full versions of the technical papers accepted for the conference will be available to the participants both on CD-ROM and in officially published proceedings.

For further information visit the conference website at <http://www.2004cigr.org/envirowater2004> or contact the Conference Secretariat: Chinese-Israeli International Center for Training in Agriculture (CICTA); P. O. Box 151,

China Agricultural University (CAU), East Campus; Qinghua Donglu 17, Beijing 100083, P. R. China. Tel: + 86 10 62337154 or 62337148, Fax: +86 10 62337138 E-mail: Ciicta@public.bta.net.cn

Vth International CIGR Symposium on “Concrete for a Sustainable Agriculture: Agro-, Aqua- and Community Applications”

Under the auspices of CIGR-Section II, the Polytechnical University of Madrid (UPM), the Spanish Institute of Cement and Its Applications (IECA), and the Institute for the Promotion of Certified Reinforcement (IPAC) have the honour to invite you to participate in the Vth International Symposium “Concrete for a Sustainable Agriculture”, which will be held from **5 to 8 June 2005** in **San Lorenzo de El Escorial, Spain**.

The following themes will be dealt with:

- Innovative concrete structures and infrastructures in

agriculture, horticulture and livestock farming

- Durability and quality aspects on concrete in agriculture
- Concrete in relation to general animal welfare and energy savings
- Concrete for water management and environmental protection
- Use of precast concrete elements in livestock and rural buildings
- Other relevant topics

For further information please contact the Secretariat or the Committee Co-Chairs, Miguel A. Garcimartin & Elvira Sanchez Espinosa at: Departamento de Construcción y Vías Rurales, E.T.S. Ingenieros Agrónomos, Ciudad Universitaria, 28040 Madrid. Tel.: +34 913 365 762 & +34 913 365 420, Fax: +34 913 365 766. http://www.cvr.etsia.upm.es/cigr_concrete_symposium.htm E-mail: secretariat@cvr.etsia.upm.es

ACTIVITIES BY CIGR REGIONAL SOCIETIES

AgEng 2004: “Engineering the Future”

This conference will be held from **12 to 16 September 2004**, at the city campus of the Katholieke Universiteit **Leuven, Belgium** (University of Leuven). The conference addresses engineering issues related to the future of agriculture, the environment, biological systems and related industries in order to serve society and all people. Engineering and technology will be dealt with not just as a driving force but also as a catalyst that enables change.

New technologies are required to enable agriculture to meet future challenges. Changes in food production and food supply must be carefully prepared both to meet the expectations of consumers and to lead to a profitable and sustainable agriculture. Increased demands of consumers for safe food produced with techniques that are acceptable for the environment will lead to the development of advanced engineering as part of a new agriculture. This includes new technologies that are emerging for post-harvest treatments of food. All these technologies involve or incorporate engineering principles based on biological systems.

The conference will deal with the following topics:

I. Basic Natural Resource Engineering

- Soil properties and tillage practices
- Soil erosion: processes & control
- Land resources & landscape: planning & management
- Flow, transport processes and crop water requirements
- Irrigation & drainage
- Hydrology & water resources: management & pollution control
- Renewable energy sources & energy systems
- Technology for soil & water engineering
- Wastewater purification & recycling

II. Primary Production Technology for Food & Fibers

- Precision agriculture
- Sensors & actuation
- Combines & Harvesting machines
- Forest & nature engineering

III. Integrated Management Systems for Animals

- Livestock technology
- Animal welfare
- Process control & environment control for animal structures
- Modelling in precision livestock
- Aquaculture
- Laboratory animals
- Agricultural structures & design
- Particulate Matter emissions from animal production
- Manure handling

IV. Engineering Technologies for the Future

- Technology for organic farming
- Technological aspects of food safety & traceability
- Farming in a multi-functional environment
- Agricultural engineering in transitional & developing countries

V. Sustainability in Food Production

- Agricultural engineering curricula
- Information Technology
- Social aspects of food production
- Sustainable systems for food production
- Economical aspects of sustainable food production
- Education on sustainable food production

The registration fees (+ 21% VAT charged to participants whose company/organisation is located in Belgium and to those within the European Union who do not have a VAT number) are (before/after 15 June 2004) 390 € / 440 € for EurAgEng & CIGR members/speakers 250 € / 290 € for students, participants from developing countries, and one-day attendance. A book of abstracts, the CD-ROM proceedings, sandwich lunches, coffee breaks, and the welcome reception are included in the registration fees.

Deadlines:

Extended abstracts:

1 June 2004

Full papers:

1 August 2004

The collected extended abstracts will be available to par-

ticipants at the conference. Submission of conference papers to the Biosystems Engineering Journal (the scientific journal of EurAgEng) is encouraged.

For further information, contact: AgEng 2004 c/o Technologisch Instituut; Luc Baele; Desguinlei 214; BE-2018 Antwerpen, Belgium. Tel.: +32 3 2600861 Fax: +32 3 2160689; e-mail: info@AgEng2004.be The conference website at <http://www.AgEng2004.be/> contains extensive information as well as online registration facilities etc.

VI Latin American Congress of Agricultural Engineering

Organised by the Latin American and Caribbean Association of Agricultural Engineers (ALIA) and the Costa Rican Association of Agricultural Engineers (ACIA), this event will take place from **22 to 24 November 2004** in **San José, Costa Rica**. It is the sixth in a series of congresses initiated in 1994 by ALIA and held at intervals of two years.

The purpose of the event is to bring together professionals in agricultural engineering and related fields and to gauge the potential of agricultural engineering to contribute to the

growth and development of Latin America and to improve production systems and the quality of life of those who depend on agriculture.

The subjects to be discussed include:

- Agricultural mechanization
- Soil and water
- Food engineering and postharvest processing
- Constructions, environment & use of energy in agriculture
- Biological engineering systems
- Computer science and automation in agriculture
- Teaching and research in agricultural engineering

Important dates and deadlines:

Notification of acceptance 31 July 2004

Complete work due 31 August 2004

Information about registration fees is not yet available.

For further information, please contact the Costa Rican Association of Agricultural Engineers (ACIA), P.O. Box 2346-1000, San José, Costa Rica. Tel.: 506 253 5428, Fax: 506 224 9598. E-mail: congresoalia@costarricense.cr. <http://www.cfia.co.cr/congresoalia>

CIGR CO-SPONSORED ACTIVITIES

V International Conference on "Microprocessor Systems in Agriculture"

This Conference will be held from **25 to 26 May 2004** in **Plock, Poland**. It is organized by, among others, the Institute of Mechanical Engineering of the Warsaw University of Technology, the Institute of Production Engineering and Building Research of the Federal Research Centre of Agriculture Braunschweig-Völkenrode (FAL), Germany, the North-West Research Institute of Agricultural Engineering and Electrification, Saint-Petersburg, the Russian Federation. The purpose of this Conference is to provide a forum for the presentation and discussion of the state-of-art and future developments of microprocessor systems in agriculture and related areas. Papers for presentation are expected from universities and research institutes, industry as well as out of practical farming. The official languages at the Conference will be English, Russian and Polish.

The main topics will include:

- Modelling of processes, use of artificial intelligence
- Designing, programming and testing of microprocessor systems
- Development of sensors and actuators, data transmission
- Microprocessor monitoring and automation of working processes in agricultural machinery
- Microprocessor systems for automation of plant production and storage
- Contribution of microprocessor systems to development of precision and pro-ecological farming
- Application of microprocessor systems in livestock production
- Application of microprocessor systems in agricultural research
- Advances in agromechatronics, development of agro-robots

- Economic and ergonomic aspects of the application of microprocessor systems
- Information technologies

Deadlines:

Full paper submission (in English): 20 April 2004

Papers will be reviewed by the Scientific Committee and published in the Conference Proceedings available at the Conference. Submission of Conference papers to the "Problems of Agricultural Engineering" (the scientific journal) will be encouraged.

For further information please contact Dr. Bogdan Jasinski, Institute of Mechanical Engineering of the Warsaw University of Technology, ul. Lukasiewicza 17, 09-400 Plock, Poland, Tel/Fax: +4824 2626542, E-mail: bogdan@pw.plock.pl, Further information is available at <http://www.mria.pw.plock.pl/conference/>

Energy Efficiency and Agricultural Engineering 2004

This conference will be held at "Angel Kunchev" University of **Rousse, Bulgaria**, from **3 to 5 June 2004**. The Conference is organized by the Bulgarian National Society of Agricultural Engineers, with the support of CIGR Section IV, AESEE (Society of Agricultural Engineering of Southeastern Europe), EurAgEng Special Interest Group 23, the Union of Scientists, Rousse, and the Federation of the Scientific Technical Unions, Rousse. The main topics are:

- Renewable energy sources
- Plant and animal production engineering
- Land, water and agro-processing engineering
- Information technologies
- Advanced technologies for crop and animal production
- Other allied topics

The official languages of the Conference will be English and Russian.

For further information contact the Secretariat: Milena Popova, 8 Studentska Str. "A. Kunchev" University of Rousse, Faculty of Electrical and Electronic Engineering, Tel. 0035982-845536, 0035982-888 ext. 665, 843, 442; Fax: 0035982-845 708; E-mail: mivanova@ecs.ru.acad.bg; mihailov@ru.acad.bg; vezirov@ru.acad.bg; <http://octus.ru.acad.bg/baer/EE&AE-2004/conference.htm>

ISCO 2004: 13th International Soil Conservation Organization Conference

Organised by Australian Soil Science Society Inc. (ASSSI) and the International Erosion Control Association (IECA) and co-sponsored by CIGR-Section I, this conference will be held at the Brisbane Convention & Exhibition Centre in **Queensland, Australia** from **4 to 9 July 2004**.

ISCO 2004 is meant to provide an opportunity to share the solutions, knowledge and experience we have accumulated across the world and across our diverse backgrounds.

The program will be designed around three broad areas:

- Science and information on the conservation of soil and water resources
- Effective communication, learning and sharing environments
- Examples and case studies of strategies that operate across social, environmental and political boundaries, empowering people and communities

It will include general and special sessions with oral papers and posters covering activities from research to facilitation, from modelling to measurement, from science to policy and practice which move us forward in meeting society's needs. It is expected that there will be an increased emphasis on the role of women in conservation, management and conservation of arid and semi-arid lands and on conservation in urban and other high intensity land management situations as well as the strong topics which have developed through recent ISCO meetings.

For further information check www.isco2004.org or contact the conference secretariat: ICMS (Qld) Pty Ltd, 82 Merivale Street, South Bank Queensland 4101, Australia. Tel. +61 7 38441138 Fax: +61 7 38440909. E-mail: isco2004@icms.com.au

“International Quality Grains Conference: A Global Symposium on Quality-Assured Grains and Oilseeds for the 21st Century”

This conference will be held from **19 to 22 July 2004** in the University Place Conference Center **Indianapolis, Indiana, USA**. The objectives of the conference are to present current research-based knowledge on:

- Measurement technologies to quantify agronomic, quality and end use traits of cereals and oilseeds,
- Best management practices to assure the identity/purity and integrity/quality of cereals and oilseeds during the production, harvest, handling, post-harvest, and processing operations, and
- Management approaches to meet customer needs for the identity preservation, certification, and tracking of cereals and oilseeds in the evolving global market place of differ-

entiated products.

This conference will address these issues through keynote, oral and poster presentations, and special topic workshops. Commercial tabletop exhibits, and pre- and post-tours into the US Grain Belt will also be organized.

Important Dates and Deadlines:

Final communication to conference delegates 31 May 2004
All papers will be published in the Conference Proceedings. All authors will be encouraged to address the conference theme of Quality-Assured Cereals and Oilseeds for the 21st Century. Registration fees are \$425 (\$450 at the conference), for students, they are \$235 (\$250). The registration fee includes attendance at the scientific program, trade exhibition, refreshment breaks, and an e-copy of the conference proceedings. It does not include the pre and post tours.

For further information, contact: Dr Dirk E. Maier, Conference Coordinator, Post-Harvest Education & Research Center, Purdue University, 225 South University Street, West Lafayette, IN 47907-2093, USA. Phone: +1 765 4941175, Fax: +1 765 4961356. E-mail: iqgc2004@ecn.purdue.edu. The conference website at <http://www.iqgc.org/> contains more detailed information as well as forms for abstract submission and registration.

AFITA/WCCA2004:

4th International Conference of the Asian Federation of Information technology & 2nd World Congress on Computers in Agriculture and Natural Resources

4th AFITA conference and the WCCA2004 congress will be held as a joint congress from **9 to 12 August 2004** in **Bangkok, Thailand**.

The Organizing Committee of the Joint AFITA/WCCA Congress is pleased to invite all professionals involved in agricultural information technology to participate in the Joint Congress of AFITA and WCCA. The program will consist of pre-conference workshops, plenary sessions, concurrent topical sessions and poster presentations.

Subjects include but are not limited to:

- Rural development and poverty reduction/knowledge based society and its strategies & policy
- Adoption and extension
- Agricultural risk management and farm management, IPM
- Decision support system and modeling
- E-AgBusiness and production chain management
- Information resource and databases
- Grid and web services
- Field Data acquisition and recording
- GIS, Remote sensing and precision agriculture
- Food safety, food security, trace ability and quality management
- Education and distance learning
- Digital library/Knowledge representation and library science
- Water management
- Multilingual services
- Aquatic resource management
- Bioinformation

- BOF's

Dates and Deadlines:

Camera-ready paper due:

31 May 2004

Registration fees are 100/150 US\$ before/after 14 June 2004. For further information, consult the conference website at <http://www.afitaandwcca2004.net/> or contact the Secretariat Office, National Electronics and Computer Technology Center, 112 Thailand Science Park, Phahon Yothin Rd., Klong 1, Klong Luang, Pathumthani Province 12120, Thailand. Tel: +66 2 564 6900 ext. 2238, Fax: +66 2 564 6772. E-mail Ms. Chantita Setalaphruk in the Secretariat: chantita@hydro.hpcc.nectec.or.th

Interregional Conference "Food Production and Water: Social and Economic Issues of Irrigation and Drainage"

This conference, co-sponsored by CIGR Technical Section I, will be held together with the 55th International Executive Council Meeting of the International Commission on Irrigation and Drainage - ICID in **Moscow, Russia**, from **1 to 8 September 2004**.

During the Conference, papers will be presented and discussed with regard for two Questions and one Special Session. Contributions will be presented under several sub-questions for each main theme. The topics for the Conference events are:

- Role of irrigation and drainage in the strategy of development and maintenance of sustainable agrolandscapes
- Present environmental and economic issues of irrigation and drainage development
- Special session Scientific and research problems of irrigation and drainage development in the XXI century

The working languages at the Interregional Conference and meetings of the ICID and its working bodies will be English and Russian, including the provision of synchronous translation. Synchronous translation in three languages, i.e. English, French and Russian, will be provided during the official opening and closing of conference and during the session of the International Executive Council of the ICID.

The registration fees (add 50 US \$ after 1 June '04) are 600 US\$ for participants from ICID member countries and 700 US\$ for non-members. Visas to enter Russia are required for the citizens of the majority of countries, except a number of CiS countries.

For further information contact: Dr. M.G. Chuelov, Secretary General, Russian National Committee on Irrigation and Drainage, C/o Ministry of Agriculture and Food of the Russian Federation, 1/11, Orlikov per., Moscow 107139, Russia. Fax: (7095) 207-8522, E-mail: bubera@wm.west-call.com. For further information look up the web page at: <http://www.vniigim.ru/conf/55/prospect.pdf>

International Conference "Environmentally Friendly Spray Application Techniques"

This conference will be held from **4 to 6 October 2004** in **Warsaw, Poland**, as a scheduled activity of the Research Centre of Excellence in Sustainable Pomology – PomoCentre, a 5th EC Framework Programme project (project no QLAM-2001-00402). The conference is intended to present ideas and results of research and identify relevant scientific

problems, necessary research and development, standardization requirements and efficient systems for technology transfer to sustainable food production.

Topics:

- Novel spray application technology
- Performance of sprayers
- Testing and adjustment of sprayers
- Filling and cleaning of sprayers
- Nozzles, atomisation, adjuvants, spray quality
- Precision spraying, target detection, selective application
- Spray drift, buffer zones
- Dose rates determination (spacious crops)
- Non-chemical plant protection techniques
- Decision support systems in plant protection
- Risk assessment and management in plant protection
- Environmental and health consequences of plant protection
- Methodology of research on spray application

Important Dates and Deadlines:

Early registration:

1 July 2004

Submission of full papers:

7 October 2004

The conference will be held in English. The conference fees are € 200/220 (before/after July 1, 2004).

For further information, please contact convenor Grzegorz Doruchowski ([gdoru@insad.pl](mailto:gdor@insad.pl)) or secretary Konopacki (pkonopac@insad.pl): Research Institute of Pomology and Floriculture, Pomologiczna 18, 96-100 Skierniewice, POLAND. Phone: +48 46 833 20 21 Fax: +48 46 833 32 28. The website <http://www.pomocentre.insad.pl/> offers further information as well as online registration features.

International Conference on Postharvest Technology & Quality Management in Arid Tropics

This conference will be held at Sultan Qaboos University, **Sultanate of Oman**, from **24 to 26 January 2005**. The first International Conference on postharvest technology in the region, it will provide an international forum to discuss the latest technological developments and scientific innovations for reducing losses, maintaining product quality and adding value to food and agribusiness supply chains, and enhancing the competitiveness of agricultural and seafood products in the Gulf Region and Oman in particular.

The major themes of the conference include:

- Pre-harvest factors affecting postharvest quality and losses
- Postharvest handling systems and ergonomics
- Optimal refrigerated and controlled atmosphere storage systems
- Drying and packaging technology
- Postharvest treatments to maintain quality
- Focus on seafood postharvest
- Quality and supply chain innovation
- Food traceability and safety management
- Postharvest economics, market access & other emerging issues
- Education and training in postharvest technology & quality management

Important Deadlines:

Notification of acceptance:

30 April 2004

Submission of full paper: 30 August 2004
 For further information, contact: Assoc Prof. Linus U. Opara & Assoc Prof. Shyam S. Sablani, Department of Bioresource and Agricultural Engineering, College of Agricultural and Marine Sciences, Sultan Qaboos University, P.O. Box 34, Al-Khod, Sultanate of Oman. Fax: +968 513 418 Tel: +968 515 238. Email: linus@squ.edu.om and shyam@squ.edu.om.

33rd International Symposium "Actual Tasks on Agricultural Engineering"

Co-sponsored, among others, by CIGR, this symposium will be held from **21 to 25 February 2005** in **Opatija, Croatia**. "Actual Tasks on Agricultural Engineering" have been held for 32 years now, gaining in international standing in recent years thanks to the co-sponsoring by CIGR, EurAgEng, and AESEE. The official languages of the symposium will be English and Croatian.

The aim of the Symposium is to present the latest scientific results on all aspects of research, design and development work in the various disciplines of agricultural engineering. Papers dealing with the following topics, or with other aspects of agricultural engineering, are invited:

- Farm mechanisation
- Power and machinery
- Ergonomics

- Energy in agriculture
- Soil and water
- Pre-harvest technology
- Crop harvesting
- Post-harvest technology
- Livestock buildings and equipment

Author instructions are available at the web address given below, and they can be sent by fax or e-mail upon request. Abstracts in English and not exceeding 500 words should be submitted by 15 September 2004. The proceedings are indexed and abstracted in leading international databases. The registration fee of 100 € (minus 20 % for CIGR, EurAgEng, and AAAE members) covers proceedings and farewell banquet.

Key dates

Submission of abstract	15 September 2004
Notification of paper acceptance	1 October 2004
Submission of full paper	1 December 2004
Registration deadline	15 December 2004

For further information, look up <http://www.agr.hr/aed> and contact the Symposium Secretariat: Faculty of Agriculture Agricultural Engineering Department, Svetosimunska 25, HR-10000 Zagreb, Croatia. Tel.: +385 1 2393819 Fax: +385 1 2315300 E-mail: skosutic@agr.hr

OTHER ACTIVITIES

International Workshop on "Dissemination of Research Results"

This workshop will be held in the Research Institute for Animal Production in **Nitra, Slovak Republic**, from **29 April to 1 May 2004**. It is part of the project "Orientation of Animal Agricultural Research towards Sustainable Rural Development and the Integration of Research within Europe" (ANIMAGRESINTEGR) co-ordinated by the Research Institute for Animal Production, Nitra, in the Fifth Framework Programme of the European Community for Research, Technological Development and Demonstration Activities.

The main aim of the Workshop is to enhance the exchange of scientific knowledge on methods used for the dissemination of research results into practice under the conditions of the enlarged European Union.

Topics to be discussed during the Workshop are:

- Planning of research projects, including participation of users of the results
- Contributions of users in financing the projects
- How research results are disseminated into practice
- Research results in the context of farming systems
- Communication among researchers, farmers and other stakeholders, extension services, governmental and other bodies with an interest in dissemination of research results or knowledge transfer
- Extension service systems in agriculture

Experts from research and extension organisations, equipment manufacturers, government bodies and managers of

large-scale farms are invited to participate in the Workshop. Registration fees are 150 € per person, covering participation in the Workshop, proceedings (distributed at the workshop), lunches and coffee, reception on Thursday 29 April 2004. The official language during the Workshop will be English. Simultaneous translation into Slovak will be also available. For further information, contact the Organising Secretariat: Jan Orság, Research Institute for Animal Production, Hlohovská 2, 94992 Nitra, Slovak Republic. E-mail: orsag@vuzv.sk Tel.: +421 37 6546272, Fax: +421 37 6546483

7th International Symposium Technology Application in Horticulture & Viticulture

Jointly organised by ATW and DWV and subtitled "Quality Management in Horticulture & Viticulture", this symposium will be held from **9 to 11 May 2004** in **Stuttgart, Germany**, as part of the international technology trade fair for wine, fruit and fruit juice "Intervitis Interfructa". The conference languages will be German, English and French (simultaneous translation provided).

Topics:

- I. Technology & Physiology
 - Canopy systems & yield regulation
 - Soil water management
 - Soil management systems
 - Harvest technology
- II. Plant Protection
 - Target-oriented application technology

- Dosage- and guidance-technology
 - Environmental sustainability concepts
- III. "Precision Systems" in grape and fruit production
- Holistic concepts
 - Data bases & mapping systems (i.e. GIS, GPS)
 - Data management in companies and joint-ventures
 - Mechatronic systems

For further information, contact: Dipl. Ing. Catharina Ries, Deutscher Weinbauverband, Heussallee 26, D-53113 Bonn, Germany. E-mail: crie@dwv-online.de Tel: +49 (0)228 94932515, Fax: +49 (0)228 94932523

2nd World Conference and Technology Exhibition on Biomass for Energy, Industry and Climate Protection

This conference will be held in **Rome, Italy**, from **10 to 14 May 2004** as a joint global event combining the "13th European Conference on Biomass" with the "Biomass Conference of the Americas".

Papers are invited for the following topics:

- Biomass resources
- Research and development of bioenergy conversion technology systems
- Demonstration and market implementation of bioenergy in the heat and electricity sector
- Demonstration and market implementation of bioenergy in the transportation sector
- Combined application of biomass for energy, industrial products for climate protection
- Economics and benefits deriving from biomass process technologies, integration and simultaneous production
- International biofuels trade
- Strategy and policy issues
- International Co-operation for accelerating the large-scale worldwide deployment of bioenergy
- Biomass in the developing world

Papers will be presented in oral and poster presentations and published in the conference proceedings. For further information please contact: ETA - Renewable Energies; Piazza Savonarola,10; 50132 Florence, Italy. Tel.: +39 055 5002174 Fax: +39 055 573425 email: bio-mass.conf@etaflorence.it. Extensive information available at <http://www.conference-biomass.com/>

„Soil conservation in a changing Europe” 4th International Congress of the European Society for Soil Conservation (ESSC)

This congress will be held from **25 to 28 May 2004** at the Hungarian Academy of Sciences in **Budapest, Hungary**. Agriculture - one of the most delicate issues related to the extension of the EU in 2004 – relies on soils. How can soil fertility be preserved, soil erosion and other degradation processes be controlled, reduced or avoided? What are the main objectives, methods and problems of soil conservation in the present EU States and in the rest of Europe? Can soil conservation measures in Europe be harmonised?

The 4th Congress of the ESSC intends to bring together European and overseas scientists to discuss European and world wide problems of soil degradation and soil conserva-

tion; to present research results in the field of soil conservation in „old” and „new” EU countries; and to discuss the applicability of new scientific findings in the practice of soil conservation.

In particular, the following issues will be addressed:

- Land use and land cover change
- Soil erosion measurements at different scales
- Modelling of soil erosion
- Tillage erosion
- Wind erosion
- Land degradation and desertification
- Soil conservation and water management
- Soil pollution
- Legislation issues of soil conservation, Harmonization of soil conservation policy in the EU
- Socio-economic aspects of soil degradation

The conference language will be English. The registration fee is 370 € (ESSC members 320 €, Students 240 €). The fees for the post conference tour which will take place on 30 and 31 May are 165 €.

For further information, consult the first announcement at http://www.zalf.de/essc/Budapest_2004_1st_announcement.doc or contact: Prof. Dr. Ádám Kertész, Geographical Research Institute, Hungarian Academy of Sciences, H-1112 Budapest, Budaörsi út 45. Hungary. Tel/Fax: 36-1-309-2686, E-mail: kertesz@helka.iif.hu

2nd Field Robot Event

This event will take place at Wageningen University in **Wageningen, NL**, on **17 and 18 June 2004**. High-school and University teams are invited to enter an international open-air field robot contest. The teams will compete with self-constructed robots, navigating and operating autonomously in a maize field. A side programme will promote networking and exchange of experience.

For further information, look up <http://www.FieldRobot.nl> or contact +31 317 484194, Fax: +31 317 484819, Email: Info@FieldRobot.nl

The First World Congress of Agroforestry

This congress will be held from **27 June to 02 July 2004** at the Hilton in **Orlando, Florida, USA**. The overall theme “Working Together for Sustainable Land-use Systems”, will be developed in plenary, sub-plenary, concurrent, and poster sessions.

The deliberations of the plenary sessions will focus on five major topics:

- Improvement of rural livelihoods
 - Enhancement of the environment and landscape
 - Agroforestry science and education
 - Policy, social, and institutional issues
 - Agroforestry: the next 25 years
- There will be eight symposia on the following topics:
- Agroforestry and food security
 - Biodiversity
 - Carbon sequestration and environmental benefits
 - Ecological basis of North American agroforestry
 - Public/private partnerships
 - Technology transfer

- Trees and markets
- Water issues

The official language of the Congress shall be English. For further information, contact Dr. P. K. Nair, Distinguished Professor, Director, Center for Subtropical Agroforestry, SFRC, University of Florida/IFAS, PO Box 110410 Gainesville, FL 32611-0410, USA. Tel: +1 352 8460880, Fax: +1 352 8461277, E-mail: pknair@ufl.edu. Registration forms at <https://conference.ifas.ufl.edu/wca/reg.htm>.

7th International Conference on Precision Agriculture

The 7th International Conference on Precision Agriculture and Other Precision Resources Management will be held from **25-28 July 2004** at the Hyatt Regency in downtown **Minneapolis, MN, USA**. It provides a forum for presentations on the current status of precision agriculture research and applications worldwide. There will be oral and poster presentations and exhibits, as well as opportunities for discussion and exchange of information in various aspects of precision agriculture.

Conference themes include:

- Crop quality
- Natural resource variability
- Geostatistics/sampling
- Precision management
- Engineering technology
- Remote sensing
- Information management
- Modelling
- New applications around the world
- Profitability
- Environment
- Education/Outreach

Further information is available at <http://www.precision.agri.umn.edu/Conference/>.

For questions regarding registration, billing and entry and visa requirements, contact contactus@cce.umn.edu, for questions concerning

For questions regarding hotel reservations contact the Hyatt Regency directly: Tel: +1 612 370 1234, Fax: +1 612 370 1463. For questions regarding call for papers, abstract submission, speakers, etc., contact paconf@soils.umn.edu.

International Symposium on Food Production and Environmental Conservation in the Face of Global Environmental Deterioration

Organised by the Society of Agricultural Meteorology of Japan and sponsored by JAICAE, this FPEC symposium will be held from September **7 to 11 September 2004** at the Fukuoka International Congress Center, Hakata-ku, **Fukuoka, Japan**.

With a world population of more than 6.1 billion in 2002, the demands on the global environment, the atmospheric and aquatic environments are very important subjects for the 21st Century. The deterioration of these environments will create a food problem and has already begun to cause international disputes in some parts of the world.

This symposium will evaluate the meteorological environ-

ments ranging from the global atmospheric environment to microclimates, and discuss ways to improve and conserve atmospheric environments. To find possibilities to solve the food problem, discussion will focus on individual and/or general environmental problems with the participation of researchers, professors and administrators from around the world.

The symposium is the successor of the symposium on "Food Production and Environmental Improvement under Global Climate Change" held at Ube, Yamaguchi, in 1996. Reflection on the developments that have occurred since should bear significantly on future developments. It is hoped that the future prospect of food production and environmental conservation will be improved by the process of discussion and that the development of research and investigations will be improved.

The main areas of focus for the symposium are global environmental deterioration, aquatic resources deficit, food production problem, climatic or meteorological improvement and environmental conservation:

- Climatic change or climatic variation and abnormal climate or unusual weather
- Global problems of global warming, acid rain, ozone hole, biodiversity etc.
- From aquatic resources to deforestation or desertification and soil or land degradation
- From air pollution or environmental contamination to aeolian dust or yellow sand
- Environmental problems from local climate to micrometeorology
- Micrometeorological evaluation of momentum, heat, gas and vapor fluxes
- From meteorological environmental modification to microclimatic improvement and bio-environmental control
- From desert greening or revegetation to road and roof greenings
- From biometeorology to bio-ecological meteorology
- From controlled ecological life support systems to agricultural high technology
- Evaluation and utilization of meteorological resources (natural, solar, wind energy etc.)
- Mechanism of various agrometeorological disasters and their countermeasure
- Predictions of growth and development of crops, crop production and food production
- Relation between global environment problems and agriculture
- Crop growth environment and agrometeorological environment and food problems

The registration fee is 45,000 yen, 25,000 yen for students. Registration fees include: Attendance at all Sessions of the Symposium, Participation in Mixer and Symposium Banquet, a copy of the Symposium Proceedings. Sightseeing not included.

Deadlines:

Full papers:

8 September 2004

For further information and a downloadable registration form and registration instructions, please check <http://www.agr.yamaguchi-u.ac.jp/users/fpec/>.

All correspondence should be addressed to Prof. Seiji HAYAKAWA, Secretary-General of FPEC, Department of

Biological and Environmental Sciences, Faculty of Agriculture, Yamaguchi University, 1677-1 Yoshida, Yamaguchi 753-8515, JAPAN Phone: +81 83 933 5861 Fax: +81 83 933 5820. E-mail: fpec@agr.yamaguchi-u.ac.jp

ISMAB 2004

The 2nd International Symposium on Machinery and Mechatronics for Agriculture and Biosystems Engineering will be held from **8-10 September 2004** at Kobe University, **Kobe City, Japan**. Organised by the Japanese Society of Agricultural Machinery and co-sponsored by the Korean Society of Agricultural Machinery and the Chinese Institute of Agricultural Machinery, it will provide an opportunity for the exchange of ideas and research results and for transmitting scientific information from East Asia.

This conference will deal with the following topics:

- Bio-systems engineering
- Bio-mechatronics
- Biological engineering
- Power and machinery
- Post harvest technology
- Food and processing engineering
- Precision agriculture
- Automation in agro-industry
- Robotics in agriculture
- Agricultural informatics
- Information communication systems
- Bioinformatics
- Environmental technology
- Alternative energy
- Nano technology

Further information is available on the conference website <http://eloon.ans.kobe-u.ac.jp/JSAM/english/ismab.html> or from Prof. Horio, Hisashi; Dept. of Agricultural and Environmental Engineering, Faculty of Agriculture, Kobe University, 657-8501 Nada-ku, Kobe, Japan. Tel/Fax: +81 78 803 5916 E-mail: ismab@eng.ans.kobe-u.ac.jp

Biennial Conference of SEAg

The Society for Engineering in Agriculture will be holding their biennial conference from **14 to 16 September 2004** in western **New South Wales, Australia**, starting at **Dubbo**. The three-day conference will have a primary focus on

- Irrigation
- Precision agriculture (PA)

The first day of the conference will be held at the unique CSU campus in Dubbo, where papers and posters will be presented in traditional format. The keynote speaker is Jolyon Burnett, CEO of the Irrigation Association of Australia. He will pose the question: Why are there so few agricultural engineers when the need for their skills has possibly never been greater?

On days 2 and 3 of the conference, two coaches with projection facilities will head to Bourke, which is 350 kilometres to the north-west of Dubbo, and back. Digital presentations on irrigation will run in one coach, with ones on the PA theme in the other. The presentations on the buses will cover subjects related to the tour visits en route, but sourced from different geographical areas, Australian or overseas.

Registration fees are \$ 410/500 (before/after 30 June 2004), and 210 for students. Delegates will need to arrange their own accommodation in Dubbo.

Important Dates:

Preregistration:	30 April 2004
Abstracts	30 May 2004
Full text papers	30 July 2004
Posters	14 September 2004

To register your interest in presenting, or to seek further information, email Helen Fairweather at helen.fairweather@agric.nsw.gov.au or contact the Society for Engineering in Agriculture, NSW Agriculture, PO Box 865 DUBBO NSW 2830. The call for papers with a registration form is available online at <http://www.agric.nsw.gov.au/reader/17603>

2nd WASAE International Conference: "Hunger without Frontiers"

This conference, organised by WASAE (West Africa Society of Agricultural Engineering) and GSAE (Ghana Society of Agricultural Engineering), will be held from **20 to 24 September 2004** at the Kwame Nkrumah University of Science and Technology, **Kumasi, Ghana**. The official Language of this conference, which is intended to serve as a forum for experts to deliberate on the issues and provide recommendations for research, development and policy directions, will be English.

Several state-of-the-art papers are expected to be presented to gain a broad up-to-date understanding of the field. Invited papers are expected in the following areas:

- Food Security, Hunger and Malnutrition in West Africa.
- HIV/AIDS and its impact on agricultural production
- Power and machinery engineering
- Soil and water engineering
- Post-harvest engineering and biotechnology
- Conservation agriculture interventions
- Agro-energy sources and management
- Rural transport and IMTs
- Environmental conservation
- Gender, policy, training, extension etc.

Important dates:

Submission of full paper 30 June 2004

The registration fee is US\$ 200. Registered members of GSAE and local participants will pay a discounted rate of €250,000. The registration fee for the conference will include the cost of proceedings, refreshments, lunch, banquets and a technical and cultural tours.

For further information, please look up <http://www.wasae.org/conference.htm> or contact: Emmanuel Y.H. Bobobee, Conference Secretary, Agricultural Engineering Department, KNUST, Kumasi, Ghana. Tel: +233 51 60242, Fax: +233 51 60137. Email: ebobobee@yahoo.com or wasae2004@yahoo.co.uk.

International Scientific Conference on "Forest Engineering: New Techniques, Technologies and the Environment"

The main purpose of this conference, which will be held from **5 to 10 October 2004** in **Lviv, Ukraine**, is to provide

a forum for the presentation of the latest achievements in applied research and current developments in the field of forest engineering. It will also foster an exchange of accumulated knowledge and technology transfer of practical experience in the field in the use of environmentally sound techniques of sustainable forest utilisation. The Conference is dedicated to the 130th anniversary of forestry education in Ukraine.

The subjects of discussion will be:

- Technical equipment and technological processes: forest harvesting, timber transportation, forest roads, site preparation and regeneration, ergonomics, environmental protection and ecological safety.
- The use of computer technologies in forest engineering: organizational and technical planning of forest operations, transport and handling of primary forest products, computer-assisted design and planning of forest harvesting units, landings and roads, the use of GIS and hand-held technology such as GPS in sustainable forest management and harvesting systems.

The working languages of the conference are Ukrainian and English. The registration fees (incl. transportation from airport, conference materials, publication of conference proceedings, welcoming ceremonies, field trips, farewell banquet, lunches and meals during the Conference) will be 100-200 €, depending on the level of participation.

Important Dates:

paper/poster submission, payment, final registration	30 May 2004
Formal invitation	29 June 2004
Final announcement	14 September 2004

For detailed information, please contact the Conference Organizing Committee: Ukrainian State University of Forestry and Wood Technology, 105 General Chuprynka St., 79057 Lviv, Ukraine. Email: styran@forest.lviv.ua Tel.: + 380 322 390 669. Fax: +380 322 378 905. <http://ifec.lvivport.com/>

62nd VDI-MEG International Conference Agricultural Engineering

This conference, organised by VDI-MEG in co-operation with EurAgEng, will be held on **7 and 8 October 2004** at the Technical University **Dresden, Germany**.

Main Topics of the Conference

- Tractors: Concepts, interfaces to implements, tyres, chassis, use and economics
- Powertrain: New concepts, simulation, electrical powertrain, hybrid powertrain
- Automation technology: Electronics, sensor technology, actuator, mechatronics
- Fertilizing and Plant Protection: Integrated and ecological
- Farm-Audit: Technique, information management, outdoor operation, indoor operation
- Precision Farming: environment protection, product quality, consumer protection
- Root Crop: Cultivation, harvest, post harvest
- Industrial Product Development
- Young Engineers for Europe: Forage harvesting, tillage, modelling and simulation

Papers for presentations are expected from industry, universities and research institutes as well as out of practical

farming.

The conference languages will be German and English (no simultaneous translation provided). Authors get a reduction of 50% on the regular conference fee.

Important Deadlines:

Acceptance notification:	30 April 2004
Camera-Copy of short version:	2 August 2004

The final program with registration form will be available approx. 10 weeks prior to the conference. For further information, contact: VDI Verein Deutscher Ingenieure, Max-Eyth-Gesellschaft Agrartechnik im VDI, Postfach 10 11 39, D-40002 Düsseldorf, Germany. Tel: +49 211 62 14 522, Fax: +49 211 62 14 163 E-Mail: meg@vdi.de <http://www.vdi.de/tagung-landtechnik>

2nd Central European Meeting and 5th Croatian Congress of Food Technologists, Biotechnologists and Nutritionists

The objective of this congress, which will be held from **17 to 20 October 2004** in **Opatija, Croatia**, is to provide a multidisciplinary forum in the fields of food science and technology, human nutrition and biotechnological applications in food production.

- Food products and technologies
- Advances in food engineering
- Food packaging
- Food safety and quality
- Food microbiology
- Biotechnology and bioengineering
- Food, nutrition and health
- Food and consumers
- Water and waste water

The official language of the congress will be English. All sessions will be conducted in English and all presentation papers will be printed in English. Registration fees are € 300/400 (before/after 15 July 2004) and € 100/120 for certified students. Members of CIGR, EurAgEng and PBN are entitled to € 50 reduction in fees.

Dates and deadlines:

Preliminary registration	30 April 2004
Abstract submitted	30 April 2004
Acceptance notification	31 May 2004
Paper submission	30 November 2004

For further information, please contact the Congress Secretariat: Food Technologists, Biotechnologists and Nutritionists Society; P.O. Box 625; HR-10000 Zagreb; Croatia. Fax: + 385 (0) 1 48 26251 E-mail: pbncongress@pbf.hr <http://www.pbf.hr/pbncongress>

6th International Symposium on Plant Responses to Air Pollution and Global Changes: from Molecular Biology to Plant Production and Ecosystem

The 6th APGC Symposium will be held from **19 to 22 October 2004** at the International Congress Center Epocal Tsukuba, **Tsukuba, Ibaraki, Japan**.

I. Impacts of Air Pollution and Global Change

- Molecular biology
- Plant metabolism

- Ecophysiological effects
 - Plant production effects
 - FACE: Free Air CO₂ Enrichment
 - Controlled-environment research
 - Natural CO₂-springs
 - Terrestrial ecological effects and forest decline
 - Eco-modelling and prediction of global change
 - Ultraviolet-B radiation
- II. Monitoring and Remediation
- Greenhouse gases and other trace gases
 - Flux measurement
 - Phytomonitoring
 - Phytoremediation
 - CELSS
 - Nondestructive instrumentation and image sensing
 - Remote sensing and GIS
- III. Current Asian Environmental Problems
- Air pollution and acid rain
 - Global change
- Other global environmental problems
- Deadlines and Dates:
- Advance registration deadline: 31 July 2004
- Further information is available on the internet at <http://apgc2004.en.a.u-tokyo.ac.jp/> or from professor Kenji Omasa, Chairman of the International Organizing Committee, aura@mail.ecc.u-tokyo.ac.jp

CONAT 2004 International Automotive Congress

This congress dealing with „Automotive and Future Technologies“ will be held in **Brasov, Romania** from **20 to 22 October 2004**. CONAT International Congresses are a chain of scientific congresses initiated by Transilvania University in 1965. They intend to facilitate a profitable exchange of information among specialists in automotive engineering and a discussion of new challenges facing the automotive industry.

The themes of the congress are:

- Innovative technologies for automotives
- Automotive and environment
- Advanced transport systems
- Automotive systems
- Manufacturing and logistics
- Engineering training

For further information look up <http://conat.unitbv.ro/> or contact the organising committee: Automotive Department, SAE Brasov Group, Transilvania University of Brasov, Bd. Eroilor 29, RO-500036 Brasov, Romania. Tel. +40268413000 int. 173 Fax: +40268474761 E-mail: conat2004@unitbv.ro

Agroenviron 2004: "The Role of Multi-Purpose Agriculture in Sustaining Global Environment"

Organised by the University of **Udine, Italy**, the fourth international symposium of the Agroenviron series will be held from **20 to 24 October 2004**. The organisers of this event hope that the series will continue in the future and provide an instrument for involving more and more scien-

tists, engineers, planners, institutions, and countries in agro-environmental issues for sustaining the environment of this globe. The symposium will give scientists an insight into today's burning issues related to agriculture, and it should help to choose the right directions for the future in sustainable agriculture in this millennium.

The topics proposed for presentations in Udine include:

- Land, water, and air pollution in agricultural areas
 - Precision agriculture and yield forecasting
 - Landscape ecology
 - Forestry and range land management
 - Climate changes and global agricultural environment
 - Biotechnology and agricultural biodiversity
 - Desertification and land degradation control
 - Agricultural waste reuse and field management
 - Wetland and coastal ecology in humid environment
 - RS/GIS techniques in agriculture
- Current advances in restoration of rural areas for sustainability

For further information, contact Prof. Dr. Giuseppe ZERBI, Symposium Secretary General, University of Udine, Udine/ITALY; E-mail: zerbi@dpvta.uniud.it

Second World Engineers' Convention 2004

The Second World Engineers' Convention will be held in **Shanghai, China, 2 to 6 November 2004**, under the auspices of the World Federation of Engineering Organizations (WFEO). The theme of WEC2004 is "Engineers Shape the Sustainable Future".

The program includes a plenary session and seven parallel sessions on:

- Network engineering and information society
- Biological engineering & healthcare
- Transportation and sustainable mega-cities
- Environment protection and disaster mitigation
- Agricultural engineering and food security
- Resources and energy
- Ecological material and green manufacturing

For more information, please contact Tel. +86 10 621 73499, Fax: +86 10 62180142, Email: wec2004sec@sino-meetings.com or consult the web page at www.wec2004.org

2004 Annual Scientific Conference and General Meeting of TSAE

The 2004 Annual Scientific Conference and General Meeting of the Tanzania Society of Agricultural Engineers (TSAE) will be held at the TANESCO Training Institute, Morogoro from **22 to 24 November 2004**. The TSAE 2004 Annual General Meeting (AGM) will be held at the end of the Scientific Conference on 24 November 2004.

The main theme of "The Role of Engineering and Technology in Poverty Reduction" will be subdivided into 13 sub-themes:

- Appropriate technology adaptation, adoption and use for poverty reduction
- Role of information and communications technologies in poverty reduction
- Water supply and sanitation
- Food production and processing

- Housing
- Energy
- Transportation
- Income generation
- Employment creation / entrepreneurship
- Education and training
- Environmental issues
- Gender issues in poverty reduction
- HIV/AIDS

Members of TSAE, IET, and the general public are invited to submit papers on any of the sub-themes listed above. Abstracts should be sent to the Secretary to reach him by 30 April 2004. Full papers for accepted abstracts should be received by 15 August 2004.

For further information contact: The Secretary, Tanzania Society of Agricultural Engineers (TSAE), P.O. Box 3003, CHUO KIKUU, MOROGORO. TANZANIA.

Tel: +255 23 2604216; +255 23 2603511-4 Ext. 4433;

Fax: +255 23 2603718. E-mail: tsae@suanet.ac.tz URL:

<http://eng.suanet.ac.tz/>

7th International Conference on "Construction, Technology and Environment in Livestock Farming"

The Max Eyth Society for Agricultural Engineering of the VDI (VDI-MEG), the Committee for Technology and Structures in Agriculture (KTBL) and the Federal Agricultural Research Centre (FAL) invite you to participate in this conference, which will be held on **2 and 3 March 2005** at the FAL in **Braunschweig, Germany**.

The main aim of this biannual conference is to present and to discuss the latest developments in farm buildings, animal housing and animal production as well as new solutions for environmental engineering concerning emissions and process technology.

The Institute of Production Engineering and Building Research of the FAL invites scientists and experts in agricultural engineering and manufacturers to give oral, poster or video presentations in one of the three sessions of the conference. Presentations should deal with innovative developments or solutions in connection with husbandry systems for dairy cows, cattle, pigs poultry and horses, specifically:

- Farm building, building systems, constructions, building material, building costs
- Husbandry systems, animal welfare
- Milking systems
- Feeding
- Management and labour
- Quality assurance and documentation of production
- Environmental impact, emissions, immissions, air quality
- Computer based systems
- Sustainable production systems
- Waste based products, renewable energy

Please submit proposals for presentations (abstracts, 400 words) to the Conference Secretary by 31 May 2004. The conference languages will be German and English. A volume of the papers will be distributed to the participants of the Conference. The organizers are working to keep the price to a reasonable level of around 140 €. The final programme and further information will be available from November 2004.

Dates and deadlines:

Abstract submission (400 words): 31 May 2004

Acceptance notification: 31 August 2004

Full texts: 30 November 2004

For further information, please mail to: Prof. Dr. F.-J. Bockisch, Institute of Production Engineering and Building Research, Federal Agricultural Research Centre (FAL), Bundesallee 50, D-38116 Braunschweig, Germany.

Tel. +49 531 596 4402 / 4406 Fax: +49 531 596 4499;

E-mail: BTU-Tagung-2005@fal.de; <http://www.bb.fal.de>

5th ECPA and 2nd ECPLF

The 5th European Conference on Precision Agriculture and the 2nd European Conference on Precision Livestock farming will be held as parallel conferences from **9 to 12 June 2005** in **Uppsala, Sweden**. They will deal with the following main themes:

- Feed quality management
- On-farm analysis technology
- Robotics, autonomous vehicles and controlled traffic
- Environmental effects of precision agriculture and precision livestock farming
- Precision horticulture and viticulture
- Automation in livestock farming
- Implementation, education and training

Contributions of abstracts dealing with these themes and other precision agriculture and precision livestock farming themes are welcome. Abstracts can be submitted until 20 September 2004. The abstracts must be written in English, not exceeding 600 words. They will be independently refereed by the editors and appointed reviewers. Authors of accepted abstracts will be invited to write a paper intended for publication in the conference proceedings by 15 October 2004. Abstracts can be submitted online between 15 June and 20 September 2004.

Important dates:

Abstract Submission: 20 September 2004

Acceptance Notification: 15 October 2004

Submission of papers: 15 December 2004

More information and updates on the conferences can be found at <http://www-conference.slu.se/ecpa/index.htm> or <http://www-conference.slu.se/ecplf/index.htm>

Contact the conference secretariat by fax under +46 18 67 35 30 or by e-mail at ecpa@slu.se or ecplf@slu.se

PUBLICATIONS

CIGR Electronic Journal: <http://cigr-ejournal.tamu.edu/>

CIGR Electronic Journal: ISSN 1682-1130

Since the last list published here, several new articles have been published in Volumes V (2003) and VI (2004) of the *CIGR E-Journal / Agricultural Engineering International: The CIGR Journal of Scientific Research and Development*, ISSN 1682-1130

Volume V (2003)Peer Reviewed Technical Articles:

21. C. Sorensen. A Model of Field Machinery Capability and Logistics: the Case of Manure Application. Oct 2003.
22. A. Tabatabaeefar, H. Aghagoolzadeh, and H. Mobli. Design and Development of an Auxiliary Chickpea Second Sieving and Grading Machine. Dec 2003.
23. M. Rodrigues, M. Borges, A. Franca, L. Oliveira, and P. Correa. Evaluation of Physical Properties of Coffee during Roasting. Dec 2003.
24. G. Zhang, A. Ikeguchi, J. Strom, S. Morsing, H. Takai, P. Ravn, and L. Okushima. Obstacle Effects on Airflow and Containment Dispersion around a Naturally Ventilated Livestock Building. Dec 2003.
25. Z. Tan, Y. Zhang, and S. Ford. Decay of Rotational Airflow with Flow Conditioner in Larger Diameter Ducts for Dust Concentration Measurement using Isokinetic Sampling. Dec 2003.
26. S. Hillegas and A. Demirci. Inactivation of Clostridium sporogenes in Clover Honey by Pulsed UV-light Treatment. Dec 2003.
27. C. Puchalski, G. Brusewitz, and Z. Slipek. Coefficients of Friction for Apple on Various Surfaces as Affected by Velocity. Dec 2003.
28. A. Elhassan, A. Goto, and M. Mizutani. Effect of Conjunctive Use of Water for Paddy Field Irrigation on Groundwater Budget in an Alluvial Fan. Dec 2003.
29. S. Mukhtar, A. Rose, S. Capareda, C. Boriack, R. Lacey, B. Shaw, and C. Parnell. Assessment of Ammonia Adsorption onto Teflon and LDPE Tubing used in Pollutant Stream Conveyance. Dec 2003.

Invited Overview Articles:

14. G. Singh. Population and Food Production: Prospects and Challenges for Asia. Dec 2003.
15. F. Lu. Precision Agriculture Development in Taiwan. Dec 2003.
16. E. Jiang. Agricultural Production and Research in Heilongjiang Province, China. Dec 2003.
17. I. Lee, C. Kang, J. Yun, J. Jeun, and G. Kim. A Study of Aerodynamics in Agriculture. Dec 2003.
18. V. Fung and B. Jenkins. Biomass Power Development for the Philippines. Dec 2003.
19. J. Reid, J. Schueller, and W. Norris. Reducing the Manufacturing and Management Costs of Tractors and Agricultural Equipment. Club of Bologna. Dec 2003.
20. J. Reid, J. Schueller, and W. Norris. Reducing the Manufacturing and Management Costs of Tractors and Agricultural Equipment. Power Point Slides. Club of Bologna. Dec 2003.

21. T. Kobayashi. Reducing the Manufacturing and Management Costs of Tractors and Agricultural Equipment. Club of Bologna. Dec 2003.
22. T. Kobayashi. Reducing the Manufacturing and Management Costs of Tractors and Agricultural Equipment. Power Point Slides. Club of Bologna. Dec 2003.
23. Y. Sarig. Traceability of Food Products. Club of Bologna. Dec 2003.
24. G. Pellizzi. Recommendations and Conclusions-2003. Club of Bologna. Dec 2003.

Volume VI (2004)Peer Reviewed Technical Articles:

1. P. Kumar and K. Dewangan. Deflection and Contact Characteristics of a Power Tiller Tyre. Jan 2004.
2. S. Li and Y. Lin. Modeling a Single-stage Hydrocyclone for Potato Starch Separation. Feb 2004.
3. Y. Cui, Y. Li, Z. Mao, J. Lance and A. Musy. Strategies for Improving the Water Supply System in HCID, Upper Reaches of the Yellow River Basin, China. March 2004.
4. S. Mutaf, S. Alkan and N. Seber. The Effects of Natural Ventilation Air Exchange on Psychrometric Results in Poultry Houses in Hot Environment---Design Characteristics. March 2004.
5. N. Abu-Khalaf, B. Bennedsen and G. Bjorn. Distinguishing Carrot's Characteristics by Near Infrared (NIR) Reflectance and Multivariate Data Analysis. March 2004.
6. S. Sakhamuri, J. Bober, J. Irudayaraj and A. Demirci. Simultaneous Determination of Multiple Components in Nisin Fermentation Using FTIR Spectroscopy. March 2004.

The articles of the CIGR Electronic Journal are available free of charge on the internet at <http://cigr-ejournal.tamu.edu/>

Precision Livestock Farming

Contains peer-reviewed papers that were presented at the 1st European Conference on Precision Livestock Farming, 15 to 19 June 2003, Berlin. Edited by Sidney Cox. Wageningen, NL 2003. 184 pp. ISBN 9076998221. Price: (paperback) € 40.

More information: sales@WageningenAcademic.com or www.WageningenAcademic.com/ECPLF

Proceedings of the 3rd Asia-Pacific Drying Conference (ADC'03)

The official proceedings of ADC'03, held at the Asian Institute of Technology, Bangkok, Thailand from 1 to 3 September 2003, are a compilation of 65 papers in book (725 pages) and CD-ROM formats (not available separately), incl. subject and author indexes. Abstracts can be accessed at www.serid.ait.ac.th/adc.htm. To order the publication, send a bank draft worth US\$36 (plus postage) payable to the 'Asian Institute of Technology'. Contact: Miss Tasana Sa-id; Food Engineering and Bioprocess

Technology; School of Environment, Resources and Development; Asian Institute of Technology, PO Box 4, Khlong Luang; Pathumthani 12120 Thailand. Phone: +66 2 5245488, Fax: +66 2 5246200 Email: tasana@ait.ac.th or phfpe@ait.ac.th

CIGR Handbook of Agricultural Engineering

Edited by CIGR and published by ASAE. Five volumes, 2,400 pages, 110 authors. The books are available in CD-ROM and individual hardcover book format. Further information: ASAE; Dept. 1661, 2950 Niles Road, St. Joseph, MI 49085-9659; USA, Tel: 616-428-6324; Fax: 616-429-3852 E-mail: martin@asae.org

4th Report from Section II Working Group 13

Pedersen, S. & and Sällvik, K. *Climatisation of Animal Houses – Heat and Moisture Production at Animal and House Levels: 4th Report from Section II Working Group 13*, 2002. Published by Research Centre Bygholm, Danish Institute of Agricultural Sciences, P.O Box 536, DK-8700 Horsens, Denmark. ISBN 87-88976-60-2 Available for download at <http://www.agrsci.dk/jbt/spe/CIGRreport>

Proceedings of the 32nd International Symposium on Agricultural Engineering

Actual Tasks on Agricultural Engineering: Proceedings of the 32nd International Symposium on Agricultural Engineering in Opatija, Croatia, 23 to 27 February 2004. Ed. Silvio Košutić. Faculty of Agriculture: Zagreb, 2003. ISSN 1333-2651 The Proceedings contain more than 40 contributions on ca. 430 pages. For availability information, contact the editor: Silvio Košutić, Faculty of Agriculture, Agricultural Engineering Department, Svetosimunska 25, 10000 Zagreb, Croatia. Tel.: 00385 1 2393819; Fax: 00385 1 2315300 or 00385 1 2393724; E-mail: s.kosutic@agr.hr

Environmental Pollution and Agriculture

Arvind Kumar (ed.), *Environmental Pollution and Agriculture*. New Delhi: A.P.H. Publishing, 2002. This 531-page collection of 65 research articles is available for US\$ 99.70 from K.K. Agencies/Online Store of Indian publications, H-12 Bali Nagar, New Delhi-110015, INDIA. URL:

www.kkagencies.com; Tel.: +91 (0)11 5465925, Fax: +91 (0)11 5173055

Coping with Water Scarcity

Ian Cordery; Iacovos Iacovides; Luis Santos Pereira. *Coping with Water Scarcity*. IHP-VI Technical Documents in Hydrology No. 58. 272 pages, incl. bibliography. UNESCO: Paris, 2002. (IHP-VI Document code: SC.2002/WS/49, UNESCO document Catalogue Number: 127846.) This publication is available free of charge in pdf format for at <http://unesdoc.unesco.org/images/0012/001278/127846e.pdf>

Agricultural Drainage Water Management in Arid and Semi-arid Areas

Tanji, Kenneth K, and Kielen, Neeltje C.: *Agricultural Drainage Water Management in Arid and Semi-arid Areas* (FAO Irrigation and Drainage Paper 61) FAO: Rome, 2002. ISBN 92-5-104839-8. 189 pp. Incl. CD-ROM.

Precision Agriculture

This substantial paperback, edited by John Stafford and Armin Werner, contains peer-reviewed papers presented at the 4th European Conference on Precision Agriculture, 15 to 19 June 2003, Berlin. Wageningen, NL 2003. 784pp., ISBN 9076998213. Price: (paperback) € 95. More information: sales@WageningenAcademic.com or www.WageningenAcademic.com/ECPA

Recommandations internationales pour le logement des bovins viande: Synthèse des connaissances de la Commission Internationale du Génie Rural

This publication, the French version of the "CIGR Design Recommendations for Beef Cattle Housing" by CIGR WG 14, which appeared in September 2002, can now be ordered from: Technipel, 149 rue de Bercy, F75595 PARIS CEDEX 12. The price per unit is 18 € plus postage. <http://www.inst-elevage.asso.fr/> E-mail: technipel@inst-elevage.asso.fr

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Deadline for CIGR Newsletter N° 67 is 15 June 2004

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